

REMARKS

A first Office Action was mailed on October 5, 2004. Claims 1 – 17 are currently pending in the application. Applicants amend claims 1 – 6, 16 and 17. No new matter is introduced. Support for the amendments may be found, for example, in Applicants' FIGs. 2, 5 and 7 and in Applicants' specification at page 13, line 2 through page 19, line 1.

OBJECTION TO SPECIFICATION

The specification is objected to with regard to several informalities. First, the two consecutive paragraphs beginning at page 3, line 17 are objected to as being identical. Applicants respectfully submit that the two paragraphs are not identical, as the first references, for example, “memory storing parameters for each control unit to independently control the packet flow, which include a recovery time to return the counter value at the sending time of a pre-packet belonging to the control unit to a limit value” while the second references “memory storing parameters which can determine a state of change of the counter value of the counter for each control unit to independently control the packet flow” (emphasis added). Accordingly, Applicants respectfully request that the objection as to the two consecutive paragraphs beginning at page 3, line 17 be withdrawn.

The Examiner further references informalities beginning at page 14, line 18 (Applicants believe the cited passage actually begins at page 11, line 8). Applicants amend the paragraph beginning at page 11, line 1 to address these informalities, and respectfully request that the objection be withdrawn.

REJECTION UNDER 35 U.S.C. §§ 102, 103

Claims 1 – 9, 11 – 14, 16 and 17 are rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,512,741 to Kohzuki. Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohzuki in view of U.S. Patent No. 6,081,505 to Kilkki. Claim 15 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Kohzuki in view of U.S. Patent No. 6,570,890 to Keenan et al. Applicants amend independent claims 1 – 6, 16 and 17 to further clarify the nature of their invention, and respectfully traverse the rejections.

In independent claims 1 – 6, 16 and 17, Applicants disclose a packet flow control apparatus and method for controlling a flow of packets each having variable length. In independent claim 1, for example, Applicants disclose:

1. A packet flow control apparatus performing flow control of packets each having variable length, comprising:

a buffer memory for temporarily accumulating arrived packets until a sending time for each packet;

a counter updated based on the length of an input packet and a rate determined by a limited flow of packets;

a sending time determining means for determining the sending time of each packet based on the counter value and a present time; and

a sending order control means for managing a sending order of each packet accumulated in the buffer memory, and for sending a read instruction of each packet to the buffer memory, based on the sending time determined by the sending time determining means;

wherein the sending time determining means includes a memory means storing parameters for each of a plurality of control ~~unit~~ units to independently control packet flow, the parameters determining a state of change of the counter; when an input packet is written into the buffer memory, the sending time determining means obtains the sending time of the input packet based on the parameters read out from the memory means, the parameters corresponding to the control unit controlling the input packet; and the sending time determining means updates the parameters-based on a newly obtained sending time of the input packet, and transfers the newly obtained sending time of the input packet to the sending order control means

Kohzuki discloses a traffic shaper for an ATM communications system (see, e.g., abstract of Kohzuki). With reference for example to FIG. 14 of Kohzuki, the Examiner suggests that packet buffer 1410 of Kohzuki corresponds to Applicants' claimed buffer memory, packet length identifier circuit 1499 corresponds to Applicants' claimed counter, calculation unit 1440 of Kohzuki corresponds to Applicants' claimed sending time determining means, and packet buffer read controller 1414 of Kohzuki corresponds to Applicants' claimed sending order control means (see, e.g., FIG.14 and column 19, line 39 through column 20, line 67 of Kohzuki).

While Kohzuki discloses that packet length identifier circuit 1449 identifies packet length information which is used for determining a sending time, unlike Applicants' claimed invention, Kohzuki fails to disclose Applicants' claimed counter for assisting the sending time determining means in determining a sending time, and which is updated based both on a packet length and on a rate determined by a limited flow of packets.

Accordingly, for the reasons cited above, Applicants respectfully submit that amended independent claim 1 is not anticipated by Kohzuki, and is therefore in condition for allowance. Applicants substantially reapply the above arguments to amended independent claims 2 – 6, 16 and 17, which include similar limitations to amended independent claim 1 as to the claimed counter. Accordingly, Applicants submit that amended claims 2 – 6, 16 and 17 are also in condition for allowance. As dependent claims 7 - 15 each depend from at least one of allowable claims 1 - 6, Applicants further submit that dependent claims 7 - 15 are allowable for at least this reason.

CONCLUSION

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that claims 1 – 17, consisting of

independent claims 1 – 6, 16 and 17, and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, he is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,



Thomas J. Bean
Reg. No. 44,528

CUSTOMER NUMBER 026304

PHONE: (212) 940-8800/FAX: (212) 940-8776
Docket No.: 100794-11623 (FUJA 18.301)
TJB:pm